REMARKS/ARGUMENTS

Claims 1 - 27 are pending in this application. Reconsideration and reexamination of the application is respectfully requested in view of the following remarks.

The disclosure was objected to because of the informalities. Specifically, the examples given on page 34, lines 28-30, are inconsistent with the related disclosure on page 34, lines 18-19. The specification has been amended herein to make the examples given on page 34, lines 28-30 consistent with the rest of the disclosure. No new matter has been added. Thus, the objection is obviated by the amendment. Accordingly, Applicant respectfully requests that the amendment be entered pursuant to 37 CFR § 1.116.

Claims 1-27 were rejected under 35U.S.C.103(a) as being unpatentable over either JP62-103526 (hereinafter JP '526) or the admitted prior art (hereinafter APA). For the following reasons, the rejection is respectfully traversed.

Initially, it is noted that in response to Applicant's previous arguments that the dimensions of the sensor case are of a critical nature, the Examiner has stated that "the arguments of counsel can not take the place of evidence in the record." **The following argument sufficiently demonstrates with reference to the disclosure of the specification that the claimed dimensions are critical to solving a problem with the prior art, in further support of Applicant's previously submitted arguments.**

Regarding claims 1, 6, 9 and 18, neither JP '526 nor APA teaches or suggests a "sensor casing having first and second circular inner surfaces opposing to and spaced apart along said center axis from each other at a first space distance, and a third cylindrical inner surface connected at one end with said first inner surface and at the other end with said second inner surface . . . in which said first space distance is less than or equal to the diameter of said third inner surface of said sensor casing multiplied by 0.1," as required. The Examiner states that "the only difference between the claimed invention and the prior art consists in the height of the sensor casing (1) of Fig. 1 of JP '526 (or sensor casing 801 of FIG. 25 of APA) relative to its width. A mere change in size or shape is generally recognized as being

within the level of ordinary skill in the art." Applicant respectfully disagrees.

The specific dimensions required by claims 1, 6, 9 and 18 are not merely a matter of design choice as the Examiner has implied. Applicant has selected the specific dimensions to solve a particular problem. Specifically, as explained in the APA of the instant application at page 4, line 18 to page 5, line 10, the disclosed prior art acceleration sensor is prone to generating an acoustic standing wave and a large anti-resonance peak (hereinafter "dip") causing spurious noise. The sensor casing disclosed in JP '526, being substantially similar to that of the APA, has the similar limitations. Neither of the cited references discloses or suggest that the problem of spurious noise can be solved by modifying their teachings to include the specific dimensions required by claims 1, 6, 9 and 18 of the instant application.

With reference by way of example to Fig. 1 of the instant application, the acceleration sensor defined in claims 1, 6, 9 and 18, in which the first space distance (L1) is less than or equal to the diameter (D1) of the third inner surface (35) of the sensor casing (31) multiplied by 0.1, can ensure that the standing wave is prevented from being generated in the closed space (V) of the acceleration sensor. Furthermore, the closed space (V) of the acceleration sensor defined in claims 1, 6, 9 and 18 becomes smaller in size than the conventional closed space of the acceleration sensor (such as that of JP '526 and APA). The first space distance (L1) is less than or equal to the diameter (D1) of the third inner surface (35) of the sensor casing (31) multiplied by 0.1, thereby enabling to bring the frequency of the acoustic resonance out of the upper limit of the usable range of the frequency of the acceleration sensor. This leads to the fact that the acceleration sensor defined in claims 1, 6, 9 and 18 makes it possible to prevent the detection accuracy of the acceleration sensor from deteriorating stemming from the spurious noise caused by the anti-resonance of the standing wave and the acoustic resonance generated in the closed space (V) as well as to produce the acceleration sensor at a low cost with the fixed case member and the cover member commonly used and with the oscillation bodies different in diameter. The acceleration sensor thus constructed is excellent in characteristic, simple in construction and thus inexpensive in production cost, and appropriate for automatic production.

The above conclusions are supported by the Applicant's written disclosure in the application as filed, and thus supported by empirical evidence of record in the instant application. Specifically, with reference to FIG. 12 the Applicant discloses that, "Through our experimental results, the distances L1 and L2 are to be smaller than about 0.1 times the diameter D of the inner surface of the fixed case member 501 and the cover member 504" (page 36, lines 3-9). The acoustic analysis used to arrive at this conclusion are described in detail in the specification of the instant application at page 30, line 30 to page 37 line 23, with reference to FIGS. 15-17.

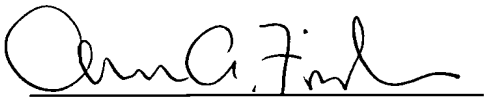
On the contrary, the sensor casing 801 shown in FIG. 25 of APA or the sensor casing disclosed in JP '526 fails to teach or suggest that the height of the sensor casing (1) in Fig. 1 of JP '526, or sensor casing (801) in FIG. 25 of APA, relative to its width can be proportioned to solve the problem of the spurious noise which deteriorates the characteristic of the acceleration sensor. Furthermore, the conventional acceleration sensors including the sensor casing 801 shown in FIG. 25 of APA and the sensor casing of JP '526, which cannot prevent the spurious noise from being generated, are required to be equipped with acoustic absorption material in order to solve the problem of the spurious noise. In contrast, the acceleration sensor defined in claims 1, 6, 9 and 18 according to the present invention can eliminate the spurious noise without being equipped with such an acoustic absorption material, thereby being excellent in characteristic, simple in construction and thus inexpensive in production cost, and appropriate for automatic production.

For all of the above reasons and for reasons stated in applicants previously submitted arguments, Applicant respectfully submits that one of ordinary skill in the pertinent art would not have found any suggestion or motivation in the prior art at the time the claimed invention was made to modify the teachings of JP' 526 or APA to include the dimensional limitations of claims 1, 6, 9 and 18. Thus, no *prima facie* case of obviousness can be made in support of sustaining a rejection under 35 U.S.C. 103(a). Since every limitation of the claim is not taught or suggested by the references, claims 1, 6, 9 and 18 and their dependent claims 2-5, 7, 8, 10-17 and 19-27 are patentable over the prior art of record.

If there are any additional fees resulting from this communication, please charge same to our Deposit Account No. 16-0820, our Order No. 33626.

Respectfully submitted,

PEARNE & GORDON LLP

By: 

Aaron A. Fishman, Reg. No. 44682

526 Superior Avenue, East
Suite 1200
Cleveland, Ohio 44114-1484
(216) 579-1700

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